AMENDMENTS TO THE CLAIMS

Presented below is a complete set of claims with current status indicators.

1.   (currently amended) A method comprising:

delivering ~~one or more~~ <u>a plurality of</u> pacing pulses to an atrium;

determining ~~one or more~~ <u>a plurality of</u> atrioventricular conduction interval times based on the ~~one or more~~ <u>plurality of</u> pacing pulses; and

~~determining a respiratory characteristic based at least in part on the one or more~~ ~~atrioventricular conduction interval times~~ <u>comparing the intervals over a period of time to detect an interval pattern indicative of either normal respiration or abnormal respiration</u>.

2.   (currently amended) ~~The method of claim 1, wherein the respiratory~~ ~~characteristic comprises~~ <u>A method comprising:</u>

<u>delivering pacing pulses to an atrium;</u>

<u>determining atrioventricular conduction interval times based on the pacing</u> <u>pulses; and</u>

<u>determining</u> a respiratory cycle length <u>based on the atrioventricular conduction</u> <u>interval times</u>.

3.   (original) The method of claim 1, wherein the atrial pacing occurs at a frequency that is at least double a respiratory frequency.

4.   (original) The method of claim 1, wherein the atrial pacing occurs at a rate that varies with respect to an intrinsic rate.

5.   (original) The method of claim 1, wherein the atrial pacing occurs at a rate that varies with respect to time.

6.   (canceled)

7.	(currently amended) ~~The method of claim 6, further comprising~~ A method comprising:

delivering one or more pacing pulses to an atrium;

determining one or more atrioventricular conduction interval times based on the one or more pacing pulses;

determining a respiratory characteristic based at least in part on the one or more atrioventricular conduction interval times; and

discriminating between obstructive apnea and central apnea.

8.	(original) The method of claim 7, wherein the discriminating relies at least in part on a measurement related to chest movement.

9. – 14.	(canceled)

15.	(currently amended) A method comprising:

determining ~~one or more~~ atrioventricular conduction interval times over a period of time; and

~~determining a respiratory characteristic based at least in part on the one or more atrioventricular conduction interval times~~ comparing the intervals to detect an interval pattern indicative of either normal respiration or abnormal respiration.

16.	(currently amended) ~~The method of claim 15, wherein the respiratory characteristic comprises~~ A method comprising:

determining atrioventricular conduction interval times; and

determining a respiratory cycle length based on the atrioventricular conduction interval times.

17.	(original) The method of claim 15, further comprising delivering one or more pacing pulses to an atrium, and wherein determining the atrioventricular conduction interval time comprises determining an interval from the pacing pulses to an intrinsic ventricular event.

18. – 20.	(canceled)

21.   (currently amended) An apparatus comprising:

means for determining ~~one or more~~ atrioventricular conduction interval times <u>over a period of time</u>; and

means for ~~determining a respiratory characteristic based at least in part on the one or more atrioventricular conduction interval times~~ <u>comparing the intervals to detect an interval pattern indicative of either normal respiration or abnormal respiration.</u>

22.   (canceled)

23.   (currently amended) An implantable cardiac stimulation system comprising:

sensing circuitry operative to sense atrial and ventricular events;

a processor connected to the sensing circuitry and operative to<u>:</u>

determine ~~one or more~~ atrioventricular conduction interval times based on the atrial and ventricular events<u>,</u> ~~wherein the processor is further operative to determine a respiratory characteristic based at least in part on the one or more atrioventricular conduction interval times~~<u>; and</u>

<u>compare the intervals over a period of time to detect an interval pattern indicative of either normal respiration or abnormal respiration.</u>

24.   (canceled)

25.   (currently amended) ~~The system of claim 24, wherein the processor is operative to~~ <u>An implantable cardiac stimulation system comprising:</u>

<u>sensing circuitry operative to sense atrial and ventricular events;</u>

<u>a processor connected to the sensing circuitry and operative to:</u>

<u>determine one or more atrioventricular conduction interval times based on the atrial and ventricular events;</u>

<u>determine a respiratory characteristic based at least in part on the one or more atrioventricular conduction interval times;</u>

<u>determine whether the respiratory characteristic indicates apnea; and</u>

discriminate between obstructive apnea and central apnea.

26.   (original) The system of claim 23, further comprising a pulse generator operative to generate stimulation pulses for delivery to a patient's heart, and at least one electrode connected to the pulse generator and configured for implant within the patient to deliver the stimulation pulses to the patient's heart, wherein the processor is operative to determine atrioventricular conduction interval times based on the delivered stimulation pulses and corresponding sensed ventricular events.

27. – 28.   (canceled)

29.   (new) The method of claim 1 wherein normal respiration in indicated by a substantially cyclical interval pattern.

30.   (new) The method of claim 1 wherein abnormal respiration in indicated by the absence of a substantially cyclical interval pattern.

31.   (new) The method of claim 1 further comprising:

noting the presence of a substantially cyclical interval pattern; and

determining a respiratory cycle length based on the substantially cyclical interval pattern.

32.   (new) The method of claim 15 further comprising:

noting the presence of a substantially cyclical interval pattern; and

determining a respiratory cycle length based on the substantially cyclical interval pattern.